

11-24-05

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY PCT
(Chapter II of the Patent Cooperation Treaty)

REC'D 16 FEB 2005

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference DXM/GJY2973		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2004/003258		International filing date (day/month/year) 26.03.2004		Priority date (day/month/year) 26.03.2003
International Patent Classification (IPC) or national classification and IPC C09D183/10				
Applicant SIGMAKALON SERVICES B.V. et al				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 20.10.2004		Date of completion of this report 14.02.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu.d Fax: +49 89 2399 - 4465		Authorized Officer Kolitz, R Telephone No. +49 89 2399-8481 		

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/003258

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-31 as originally filed

Claims, Numbers

1-45 as originally filed

Drawings, Sheets

1/1 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/003258

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-45
	No: Claims	
Inventive step (IS)	Yes: Claims	1-45
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-45
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/EP2004/003258

Re item V:

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability, Article 33 (2) to (4) PCT; citations and explanations supporting such statement

D1: US2002156224

1. The present invention relates to a **process** for the preparation of polysilylesters comprising structural units of formula (I) as defined in present claim 1 by reacting a polyacid of formula (II) with a polyacyloxysilyl derivative of formula (III), see claims 1-36. [Present claim 36 refers to the examples and figures which is formally not allowable under Rule 6.2 (a) PCT and therefore it is regarded as if it had not been filed].

Present claims 37 and 44 relate to a **film or coating** comprising a polymer obtainable by such a process and present claim 39 and 41-44 to a **film or coating composition** comprising a polysilylester obtainable by such a process.

Present claims 38 and 40 relate to a **polysilylester** comprising the structural unit of formula (I) as defined in present claim 1.

Present claim 45 relates to an **implantable medical und /or veterinary device** having a coating or comprising a coating composition according to claims 39, 41 and 43.

2. The present application meets the requirements of Article 33 (2) PCT because the subject-matter of claims 1-43 is novel.
None of the documents of the prior art discloses a **process** for the preparation of polysilylesters comprising a structural unit of formula (I) as defined in present claim 1 or a **film or coating** comprising a polymer(polysilylester) obtainable by such a process or a **film or coating composition** comprising it or the polysilylester as such as defined in present claims 37,44 / 39,41-44 / 38 and 40 or an **implantable medical und /or veterinary device** having a coating or comprising a coating composition comprising it as defined in claim 45.

The subject-matter of claims 1-45 is therefore novel.

3. The present application meets also the requirements of Article 33 (3) PCT because the subject-matter of claims 1-45 is inventive.

D1 is considered to represent the closest prior art since it discloses silylester copolymers. The silylester copolymers of D1 do not exhibit structural units of formula (I) as defined in present claim 1 and they are not produced by reacting a polyacid of formula (II) with a polyacyloxysilyl derivative of formula (III), see present claims 1-36.

The problem underlying the present application may be regarded as to provide a further silylester copolymer for metal free antifouling coatings and a process or the preparation thereof.

No indication is given in the prior art that the specific polysilylesters comprising structural units of formula (I) as defined in present claim 1 or coatings or coating compositions thereof, the specific polysilylesters being obtainable by reacting a polyacid of formula (II) with a polyacyloxysilyl derivative of formula (III), as defined in claims 1-45 can be used to solve this problem.

Therefore the presence of an inventive step can be acknowledged for the subject-matter of claims 1-45 vis- à- vis the documents of the search report.

4. The present application meets the requirements of Article 33 (4) PCT because the subject-matter of claims 1-45 is also industrially applicable.